

Amendments to the Specification

Please replace the paragraph beginning at page 18, line 16 with the following rewritten paragraph, which has been marked up to show changes made relative to the immediate prior version:

B¹ As a result of the first embodiment of the present process, high vacancy regions located within the bulk of the silicon segment are formed and are subsequently decorated or filled by platinum atoms, which are diffused into the silicon segment in accordance with the F-T mechanism. As illustrated by Fig. 5, the resulting silicon segment is characterized by a region 17 which contains a peak platinum concentration, the concentration being substantially uniform. In addition, the silicon segment contains regions 15 and 15' which extend from the front surface 3 and back surface 5, respectively, to a depth t and t'. As compared to region 17 of the silicon segment, regions 15 and 15' contain a relatively lower concentration of platinum (not shown) and, as a result, possess longer minority carrier recombination lifetimes than region 17. Platinum concentrations within these surface layers or regions may range from a low concentration of less than about 1×10^{11} atoms/cm^{3,2}, up to about 1×10^{12} atoms/cm^{3,2}, about 1×10^{13} atoms/cm^{3,2}, or even a peak concentration of about 5×10^{13} atoms/cm³ (excluding the surfaces of the segment). By dividing the silicon segment into various zones or regions by means of tailoring or controlling the vacancy concentration profile, a template is effectively created through which is written a pattern or profile for the resulting platinum concentration, after in-diffusion is complete.